

In the Specification

Please replace the paragraph beginning on page 7, line 11 with the following three re-spaced paragraphs:

“FIG. 1A illustrates an embodiment of a spaced-based power system with free-floating components; and

_____FIGS. 1B-D illustrate views of an embodiment of a system to control the positioning and alignment of power system components; and

_____FIG. 1E illustrates an alternative embodiment having a phased array antenna;”

Please replace the paragraph beginning on page 19, line 1 with the following rewritten paragraph:

“For example, referring to Figures 1B-D, in another embodiment, the primary mirror 2 includes four sensors, and the intermediate mirrors 4 and 5 include eight sensors. Figures 1C and 1D illustrate cross-sectional views showing one possible sensor arrangement. In the illustrated embodiment, four proximity control system sensors 2a on the primary mirror 2 and a corresponding four sensors 4a on the mirror 4 are arranged to look at or communicate with each other. Similarly, four additional proximity control system sensors 4a on the mirror 4 and corresponding four sensors 5a on the mirror 5 are arranged to communicate with each other. Four additional units 5a on the mirror 5 and four units 8a on the module 8 are arranged to communicate with each other. Additionally, four units 9a on the emitters 9 and four units 10a on the reflector 10 are arranged to communicate with each other.”

Please replace the paragraph beginning on page 25, line 9 with the following rewritten paragraph:

“Referring to Figure 5, in one embodiment, a space-based power system includes a lens system that includes parabola and hyperbola shaped lenses, such as a Cassagrain optical system, inflatable mirrors, and membrane support elements. More specifically, the system includes a primary mirror 2, a mirror 50, membranes 50a-d, such as transparent membranes, a first intermediate mirror 4, a module that includes concentrators 6, solar cells 7, an RF or optical module 8, RF transmitter feeds or optical emitters 9 & 8, and a thermal panel 11 (as in Figure 1), a second intermediate mirror 52, and a reflector 10.”

Please replace the paragraph beginning on page 29, line 24 with the following rewritten paragraph:

Referring to Figure 11, in another embodiment, a power generation subsystem can be configured without concentrators. Thus, the module 8, emitter 9, reflector 10 and panel components can be integrated together and connected via a power cable 110 and an electrical slip ring 112 or other suitable coupling to the solar cells 7. When sunlight is incident upon the solar cells, the DC electricity generated by the solar cells is provided to the module (8,9,10,11) via the cable 110. The module converts the DC electricity into RF or optical power, and the emitters 9 provide the RF or optical power output to the phased-array antenna reflector 19.